In re MICHELSON ET AL., Application No. 09/894,200
Amendment A

Amendments to the Claims:

The listing of clams will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A packet ~~switching system~~ switch, comprising:

a plurality of input/output interfaces;

a benes switching fabric including a plurality of first stage switching elements, a plurality of second stage switching elements, and a plurality of third stage switching elements communicatively coupled via a plurality of paths according to a benes topology;

~~a plurality of first components,~~ wherein each first stage switching element of the plurality of first stage switching elements ~~components including:~~ includes a flow control storage ~~device~~ mechanism for storing received flow control information extracted from information received from the corresponding input/output interfaces of said input/output interfaces to which said first stage switching element is coupled, and control logic for receiving said information, extracting said received flow control information from said information, and for updating the storage mechanism with said ~~device with indications of the~~ received flow control information;

~~a plurality of second components;~~

~~a plurality of paths between each of the plurality of first components and each of the plurality of second components;~~

wherein each of the first stage switching elements ~~components~~ is configured to repeatedly sequence through ~~a portion of the storage device,~~ said flow control information currently stored in the storage mechanism and to send a portion of said flow control information stored at a current location within said flow control information ~~the portion of the storage device over the plurality of paths~~ over one of said paths to ~~each~~ a predetermined one of the plurality of second stage switching elements, such that each of the first stage switching elements is configured to said send said flow control information to a different one of the plurality of second stage switching elements; ~~components; and~~

wherein each of the plurality of second stage switching elements ~~components receives said information sent from each of the plurality of first components, and each of the plurality of second components is programmed~~ is configured to receive and forward said portions of flow control information to each of the plurality of third stage switching elements; and ~~received information received from a particular one of the plurality of first components~~

wherein each of the plurality of third stage switching elements are configured to send said portions of flow control information to each of the plurality of input/output interfaces for performing flow control operations in response to said flow control information .

Claims 2-27 (canceled)

Claim 28 (new): The packet switch of claim 1, where the flow control storage mechanism includes a flow control data structure indexed by said input/output interfaces.

Claim 29 (new): The packet switch of claim 28, where each said information includes an address within the flow control data structure at which to store said extracted flow control information.

Claim 30 (new): The packet switch of claim 1, wherein the packet switch is configured to re-route said sending and forwarding of said flow control information in the benes switching fabric in response to an identified error within the benes switching fabric.

Claim 31 (new): A packet switch, comprising:

a plurality of input/output interfaces;

a benes switching fabric including a plurality of first stage switching elements, a plurality of second stage switching elements, and a plurality of third stage switching elements communicatively coupled via a plurality of paths according to a benes topology;

wherein each first stage switching element of the plurality of first stage switching elements includes: means for maintaining a flow control data structure and for updating the flow control data structure with received flow control information from the corresponding input/output interfaces of said input/output interfaces to which said first stage switching element is coupled; and means for repeatedly: retrieving a portion of said flow control information currently stored in the flow control data structure and sending the portion of said flow control information over one of said paths to a predetermined one of the plurality of second stage switching elements, such that each of the first stage switching elements is configured to said send said flow control information to a different one of the plurality of second stage switching elements;

wherein each of the plurality of second stage switching elements includes means receiving and forwarding said portions of flow control information to each of the plurality of third stage switching elements; and

wherein each of the plurality of third stage switching elements includes means sending said portions of flow control information to each of the plurality of input/output interfaces for performing flow control operations in response to said flow control information.

Claim 32 (new): The packet switch of claim 31, where the flow control data structure indexed by said input/output interfaces.

Claim 33 (new): The packet switch of claim 32, where said received flow control information is accompanied by an address within the flow control data structure at which to store said flow control information.

Claim 34 (new): The packet switch of claim 31, wherein the packet switch is configured to re-route said sending and forwarding of said flow control information in the benes switching fabric in response to an identified error within the benes switching fabric.